

TEMPpoint is a precision temperature measurement instrument designed for high accuracy and industrial robustness.

Up to 48 Instruments in 1 Small Box

- 24-bit, Delta-Sigma A/D converter for each input, simultaneous, high-resolution measurements.
- CJC for each thermocouple channel... no errors.
- Precision reference current source for each RTD channel.
- DC/DC converter per channel... provides maximum isolation.
- 1000V galvanic isolation channel-to-channel and to computer protects signal integrity... ISO-Channel™ technology

Complete Connection Freedom

- Immediate out-of-the-box measurement of thermocouple, RTD, resistance, or precision voltage.
- Mix and match on any input: temperature, resistance, or voltage.

Compact, Rugged Enclosure

- 2U, half-rack enclosure
- 88.14 mm (H) x 212.85 mm (W) x 211.43 mm (D)

USB or Ethernet (LXI)... for remote applications



TEMPpoint provides highly accurate, 24-bit resolution temperature, voltage, and resistance measurements on up to 48 channels. ISO-Channel technology provides 1000V channel to channel galvanic isolation to preserve accuracy and prevent noise problems.

Model	Sensor Type	# of Channels	Interface	Starting Price
DT9871U	Thermocouple, Voltage	Available with 8, 16, 24, 32, 40, or 48 channels	USB	\$3,195
DT9872	RTD, Voltage, Resistance			\$3,495
DT8871U	Thermocouple, Voltage		Ethernet (LXI)	\$3,695
DT8872	RTD, Voltage, Resistance			\$3,995

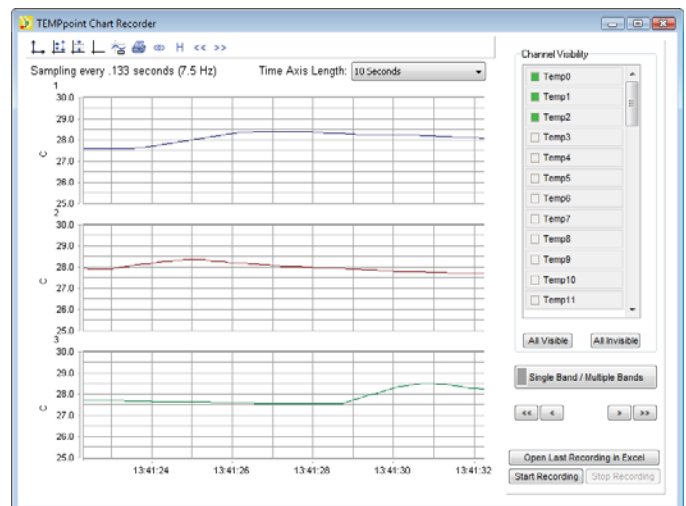
Ready-to-Measure Software Solutions

- TEMPpoint Application
 - Configure
 - Log data to disk
 - Display
 - Limit check
 - Export to Excel
- Web-based Application for Ethernet (LXI) Instruments
 - Stand-alone logger capabilities (up to 4MB of data)
 - Eureka Discover Utility



Additional Software Support

- Fully customize your application using Measure Foundry
- API (C, C++, C#, .NET)
- LabVIEW, MATLAB



Created with Measure Foundry, the TEMPpoint application allows you to acquire temperature data and then view, graph, or log the data to disk. It can be customized using Measure Foundry to meet any application need.

Typical Accuracy of Thermocouple TEMPpoint

	-100° C	0° C	100° C	300° C	500° C	700° C	900° C	1100° C	1400° C
Type J	± 0.17° C	± 0.15° C	± 0.18° C	± 0.15° C	± 0.15° C	± 0.15° C	± 0.15° C	± 0.15° C	—
Type K	± 0.17° C	± 0.16° C	± 0.15° C	± 0.17° C	± 0.15° C	± 0.15° C	± 0.17° C	± 0.16° C	—
Type T	± 0.16° C	± 0.16° C	± 0.16° C	± 0.16° C	—	—	—	—	—
Type E	± 0.16° C	± 0.15° C	± 0.15° C	± 0.15° C	± 0.15° C	± 0.16° C	± 0.17° C	—	—
Type S	—	± 0.2° C	± 0.18° C	± 0.18° C	± 0.18° C	± 0.18° C	± 0.18° C	± 0.19° C	± 0.18° C
Type R	—	± 0.2° C	± 0.18° C	± 0.18° C	± 0.17° C	± 0.18° C	± 0.18° C	± 0.18° C	± 0.18° C
Type B	—	—	—	± 0.23° C	± 0.21° C	± 0.17° C	± 0.19° C	± 0.18° C	± 0.17° C
Type N	± 0.16° C	± 0.16° C	± 0.15° C	± 0.15° C	± 0.15° C	± 0.16° C	± 0.16° C	± 0.16° C	—

Conditions for Accuracy:

- Warm-up time of 30 minutes.
- Exclusive of noise.
- Exclusive of thermocouple errors.
- Inclusive of typical 0.15°C CJC errors (maximum CJC error is 0.25°C).
- Inclusive of typical .25 µV offset error (maximum offset error is 2.5 µV).

Typical Accuracy of RTD TEMPpoint

RTD Type	System Temperature Error ¹
Pt100	±0.07° C, ±0.005% of reading
Pt500	±0.01° C, ±0.005% of reading
Pt1000	±0.01° C, ±0.005% of reading

¹ The system temperature error is based on the auto zero and system noise error (±0.07° C for a Pt100 RTD, ±0.01° C for a Pt500 RTD, or ±0.007° C for a Pt1000 RTD) plus the gain error of the A/D and output impedance of the current source over the voltage range (±0.005% of the reading). For example, the maximum error of a Pt100 RTD at 100° C is ±0.075° C (±0.07° C plus a gain error of ±0.005° C).